

Subsurface Investigation Workplan & UST Removal Report



Site:

**Glendale 76
1497 Glendale Road
Arcata, California 95521**

Prepared for:

Big Oil & Tire Co.

Dated:

August 30, 2005

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	4
2.0	INTRODUCTION.....	5
2.1	SITE LOCATION	5
2.2	SITE DESCRIPTION	5
2.3	VICINITY DESCRIPTION	6
2.4	TOPOGRAPHY	6
2.5	HYDROGEOLOGIC SETTING	6
2.6	CURRENT SITE USAGE & UST HISTORY	7
3.0	PREVIOUS INVESTIGATIONS	7
3.1	1998 CGI INVESTIGATION	7
3.2	2002 SUBSURFACE INVESTIGATION (SOUNPACIFIC)	7
3.3	GROUNDWATER MONITORING (SOUNPACIFIC)	8
4.0	UNDERGROUND STORAGE TANK REMOVAL.....	9
4.1	SOIL SAMPLE COLLECTION	9
4.2	SOIL ANALYTICAL RESULTS FROM UST REMOVAL	9
5.0	SOIL CONTAMINATION ASSESSMENT PLAN.....	10
5.1	DIRECT PUSH SAMPLING.....	10
5.2	HAND AUGER SAMPLING	11
5.3	SOIL ANALYTICAL METHODS	12
6.0	GROUNDWATER CONTAMINATION ASSESSMENT PLAN	12
6.1	GROUNDWATER SAMPLING.....	12
6.2	GROUNDWATER ANALYTICAL METHODS	13
7.0	QUALITY CONTROL AND ASSURANCE MEASURES	13
8.0	SITE SANITATION PROCEDURES	13
9.0	PROPOSED TIME SCHEDULE	14
10.0	CERTIFICATION.....	15

TABLES

TABLE 1: WATER LEVELS

TABLE 2: SOIL ANALYTICAL RESULTS

TABLE 3:GROUNDWATER ANALYTICAL RESULTS FROM BOREHOLES

TABLE 4: GROUNDWATER ANALYTICAL RESULTS FROM MONITORING WELLS

FIGURES

FIGURE 1: AERIAL/TOPO MAP

FIGURE 2: SITE PLAN

FIGURE 3:SUMMARY OF GROUNDWATER FLOW DIRECTIONS

FIGURE 4: PREVIOUS INVESTIGATIONS

FIGURE 5: UST REMOVAL SAMPLE LOCATION MAP

FIGURE 6:PROPOSED INVESTIGATION

APPENDICES

APPENDIX A:LABORATORY ANALYTICAL RESULTS FROM UST REMOVAL

1.0 EXECUTIVE SUMMARY

In October 2004, SounPacific Environmental Services (SounPacific) provided oversight on the removal of the underground storage tank (UST) system at 1497 Glendale Road, Arcata, California (Glendale 76) at the request of Big Oil & Tire Co. (BO&T), the current property owner. Based on the findings of the removal, SounPacific has combined this *Subsurface Investigation Workplan (Workplan)* to further delineate the soil and groundwater contamination and the *UST Removal Report* from the UST system removal, in the following report. A summary of the conducted and proposed activities are presented below

- On October 27th, 2004, Beacom Construction (Beacom) removed four (4) gasoline USTs. Eight (8) compliance soil samples were collected from UST pit at the ends of each UST, along with two (2) additional soil samples from the south and west sidewalls.
- Soil analytical results from the UST excavation reported total petroleum hydrocarbons as gasoline (TPHg) in four (4) of the ten (10) soil samples collected from the excavation. The highest concentration (900 parts per million (ppm)) was detected in sample 2S, that was located on the south wall of the excavation. Benzene, toluene, xylenes, and ethylbenzene (BTXE) highest total concentration was in sample 4S, in the southeast area of the excavation. The highest concentrations of methyl tertiary butyl ether (MTBE) (0.50 ppm) and tertiary amyl methyl ether (TAME) (0.17 ppm) were both reported in sample 2N. TPH as diesel (TPHd) (120 ppm) was detected at the highest concentration in sample 2S.
- SounPacific proposes that additional soil delineation is necessary near the former gasoline UST, piping runs and the dispenser island to delineate any soil contamination that may be present and determine if excavation and removal of the soil is required. To meet this objective, a total of fourteen (14) soil borings are proposed to be drilled and sampled. This includes eight (8) vertical soil borings in the vicinity of the former

gasoline UST, piping runs, and the dispenser island and six (6) horizontal borings to determine if the extent of soil contamination is significant and will require excavation and removal.

2.0 INTRODUCTION

This document presents the *Workplan and UST Removal Report (Report)* for BO&T. This *Report* was developed per the letter dated August 1st, 2005, from Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH), which requested SounPacific to submit the findings from the removal of the UST's along with a workplan to conduct additional subsurface investigation to evaluate the extent of the soil contamination in the vicinity of the former USTs and its associated piping.

2.1 Site Location

The site is located within Arcata, California, with a physical address of 1497 Glendale Road, Arcata, California. The station is positioned adjacent to the north side of Glendale Road. The site is approximately four miles northeast of downtown Arcata (Figure 1).

2.2 Site Description

The subject property is currently vacant. The property consists of a single story building with an attached storage building. Surfaces on the site consist of concrete, asphalt, gravel, and vegetation. The main structure is positioned in the center of the property with the entrance to the building facing south towards Glendale Road. A second storage building is located next to the eastern property line in the southern portion of the property (Figure 2).

Four (4) 4,000-gallon underground storage tanks (USTs) were located in a single excavation adjacent to the southeast corner of the primary structure, and were previously used for storage of three (3) grades of unleaded gasoline. Two (2) dispensers, which were previously used for dispensing fuel on site, were located on a cement island adjacent to the entrance of the primary

structure. A second cement island is located adjacent to the southern property line. The site is serviced by public utilities. Surface water flows into storm drains (Figure 2).

2.3 Vicinity Description

The surrounding land use is rural with an interspersion of commercial and residential properties. Murphy's Market resides adjacent to the west of the site. Residential properties lie directly to the east of the site. Blue Lake Forest Products lies adjacent to the north of the site. Glendale Road runs adjacent to the southern property line. A commercial storage yard lies directly to the south of the site, adjacent to the south side of Glendale Road.

2.4 Topography

The site is located approximately 1,200 feet north of the Mad River and approximately 96 feet above mean sea level (amsl). The site is located in an area of low topographic relief (Figure 1).

2.5 Hydrogeologic Setting

The site is located on a river terrace near the northern edge of the Mad River flood plain. The site is underlain predominately by gravelly river channel and sandy and silty flood plain deposits. Less significant amounts of alluvial and colluvial (landslide) deposits originating from adjacent upland areas may also be present underlying the site. If present, these deposits are characterized by angular rock fragments as distinguished from more rounded river deposits and often interfinger (irregular and wedge shaped contacts) with the river deposits. River deposits commonly form lense-shaped bodies and typically consist of varying quantities of inter-bedded medium and coarse sands, silts, clays and sub-rounded gravels.

The groundwater monitoring program shows that the general groundwater flow direction is towards the south. The depth to groundwater is approximately 11 feet bgs, but has historically ranged from eight (8) feet to seventeen (17) feet below ground surface (bgs) (Table 1, Figure 3).

2.6 Current Site Usage & UST History

SounPacific understands that the property is owned by BO&T of Arcata, California. The subject property is currently vacant. Very little information regarding UST history is available prior to the tank lining of the four (4) 4,000-gallon USTs in 1998.

3.0 PREVIOUS INVESTIGATIONS

Previous studies by Clearwater Group, Inc. (CGI) and SounPacific indicated the following historical information:

3.1 1998 CGI Investigation

On January 13, 1998, as part of the UST upgrade program, CGI staff drilled seven (7) soil borings (SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, and SB-7) around the perimeter of the USTs and dispenser islands (Figure 4). Soil samples were collected from all borings and analyzed for TPHg, BTXE, MTBE, and TPHd (Table 2). Groundwater samples were collected from borings SB-1, SB-2, SB-3, and SB-4 and analyzed for TPHg, BTXE, MTBE, and TPHd (Table 3). Groundwater samples were not collected from borings SB-5, SB-6, and SB-7 as the boring depths did not exceed 2.5 feet bgs, and groundwater was not encountered. Laboratory analysis of the soil samples (see Table 2), did report some low levels of petroleum hydrocarbons, however, the levels were not of concern. However, all four (4) collected groundwater samples reported the presence of petroleum hydrocarbons, with the highest concentrations being reported from boring SB-3, located adjacent to the north-side of the two western USTs. At this location the TPHg concentration was 79,000 ppb, with xylenes at 21,000 ppb and MTBE at 20,000 ppb.

3.2 2002 Subsurface Investigation (SounPacific)

In April 2002, with the intension of further characterizing the contamination, SounPacific performed a subsurface investigation at the facility, which consisted of drilling nine (9) soil

borings (B-8, B-9, B-10, B-11, B-12, MW-1, MW-2, MW-3, and MW-4) (Figure 4). Four (4) monitoring wells were installed in the same positions as borings MW-1, MW-2, MW-3, and MW-4. Soil and groundwater samples were collected from all borings and analyzed for TPHg, BTXE, MTBE, and four (4) fuel oxygenates. Soil samples were also analyzed for lead (Tables 2 and 3). Laboratory analysis of the soil samples did not report the presence of elevated concentrations of petroleum hydrocarbons at any of the locations. TPHg in soil samples in the vadose zone were only reported at location B-10, but concentrations did not exceed four (4) ppm. BTXE levels were all below one (1) ppm, and MTBE, although most commonly reported, did not exceed 2.5 ppm. With the exception of a single sample that reported lead at 0.12 ppm, no lead above the reporting limit of 0.1 ppm was reported. Grab groundwater samples were collected for analysis from the five borings and a groundwater monitoring program was created for the four monitoring wells. Laboratory analysis of the grab groundwater samples reported TPHg and benzene in four (4) of the grab groundwater samples and toluene, xylenes, and ethylbenzene in three (3) of the samples. MTBE was reported in all five (5) samples. The highest concentrations were from boring B-10, located to the south of the USTs, where TPHg, benzene, and MTBE concentrations were 150,000 ppb, 13,700 ppb, and 198,000 ppb, respectively.

3.3 Groundwater Monitoring (SounPacific)

The four (4) groundwater monitoring wells at the Glendale 76 site (Figure 4) have been involved in a quarterly groundwater-monitoring program since May, 2002, and is currently ongoing. As of April 30, 2005, MW-1, MW-2, MW-3, and MW-4 have been measured and sampled a total of 13 times. The program consisted of recording quarterly water level data and collecting quarterly groundwater samples for laboratory analysis for TPHg, BTXE, MTBE, five (5) fuel oxygenates, TPHd, and TPHmo. Water level data was collected and used to calculate groundwater gradient figures, which displayed the groundwater gradient and average flow directions (Figure 3). Historically, petroleum hydrocarbons have been reported in all four (4) wells, with the highest concentrations in wells MW-3 and MW-4. The locations of the wells are shown in Figures 3 and 4, with the historical laboratory results in Table 4.

4.0 UNDERGROUND STORAGE TANK REMOVAL

On October 27th, 2004, Beacom removed four (4) 4,000-gallon gasoline USTs from the site. The associated piping and dispensers are still in place. During the removal process, SounPacific collected eight (8) soil samples (1N, 1S, 2N, 2S, 3N, 3S, 4N, and 4S) from depths of 11 feet bgs at the ends of the USTs, and two (2) soil samples from the excavation pit sidewalls (SW-W and SW-S) at depths of six feet bgs (Figure 5). Groundwater was not encountered; hence no groundwater sample was collected.

4.1 Soil Sample Collection

All soil samples from the UST removal were collected following standard EPA guidelines. The sampling locations are shown in Figure 5. Soil samples were collected in pre-cleaned brass tubes that were driven into soil in the excavating backhoe bucket from the area being sampled. Following collection, all samples were labeled and immediately placed on ice in a cooler, kept just below 4 degrees centigrade, and delivered to Excelchem Laboratories, a state-certified laboratory, located in Roseville, California, under a chain-of-custody record.

4.2 Soil Analytical Results from UST Removal

All ten soil samples were analyzed for TPHg, BTXE, five fuel oxygenates, and TPHd. Laboratory analysis of the soil samples reported TPHg in four (4) of the ten (10) samples at concentrations ranging from 18 ppm in sample 3S to 900 ppm in sample 2S. TPHd was also reported in eight (8) of the samples, but with a single exception (Sample S2) that reported 120 ppm, concentrations did not exceed 14 ppm. Benzene was detected in four (4) samples with concentrations that ranged from 0.011 ppm (sample 1S) to 2.5 ppm (sample 4N). Toluene was detected in three (3) samples with concentrations ranging from 0.093 ppm (sample 2N) to 18 ppm (sample 4N). Xylenes and ethylbenzene were both reported in the same six (6) samples with xylene concentrations ranging from 0.024 ppm (sample SW-S) to 53 ppm (sample 4S), and ethylbenzene concentrations ranging from 0.006 ppm (SW-S) to 11.0 ppm (sample 4S). Of the

fuel oxygenates, only MTBE and TAME were detected, both being present in the same seven (7) samples. MTBE concentration ranged from 0.043 ppm (sample 3N) to 0.5 ppm (sample 2N) and TAME concentrations ranged from 0.011 ppm (sample SW-W) to 0.17 ppm (sample 2N). The analytical results from the removal of the USTs are presented in Table 2, with the laboratory report included as Appendix A.

5.0 SOIL CONTAMINATION ASSESSMENT PLAN

Based upon the analytical results, along with observation by both HCDEH and SounPacific personnel, during the removal of the USTs additional soil and groundwater delineation is necessary adjacent to the former gasoline UST pit, piping runs, and the dispenser island. Historical sampling and analysis has indicated that although elevated contaminant concentrations were identified during the removal of the USTs, soil sampling from borings in close proximity to the USTs have not reported the presence of any petroleum hydrocarbons. Therefore, prior to implementing the excavation of any contaminated soil it is proposed to conduct additional soil sampling at the limits of the current excavation and along the piping run to determine if any contaminated soil is present that requires excavation, prior to conducting any excavation activities. To delineate, the lateral extent of the contamination it is proposed to drill and sample eight (8) vertical soil borings (PB-11, PB-12, PB-13, PB-14, PB-15, PB-16, PB-17 and PB-18) in the vicinity of the former UST system. The eight vertical soil borings will be drilled using a truck-mounted direct-push Geoprobe® drill-rig (Figure 6). In addition, six (6) hand-augered horizontal soil borings (PB-19, PB-20, PB-21, PB-22, PB-23 and PB-24) are to be hand drilled by SounPacific staff (Figure 6), into the walls of the former UST excavation pit. SounPacific will assess, describe and sample soils from the fourteen (14) proposed borings. The positioning and purposes of the proposed locations are discussed below.

5.1 Direct Push Sampling

The eight (8) direct push vertical borings (PB-11, PB-12, PB-13, PB-14, PB-15, PB-16, PB-17 and PB-18) will be drilled by a State-licensed driller using direct push drilling technology, with a truck mounted hydraulic drill rig. Soil samples will commence at a depth of two-foot bgs, after

which samples will be collected at a minimum of four-foot intervals, lithologic changes, and areas of obvious contamination. This process will continue until groundwater is encountered, which is expected to be no deeper than 12 feet bgs. The final depths will be based on subsurface soil and groundwater conditions. Soil samples will be visually inspected in the field, described and documented by the on site geologist for lithologic documentation of soil condition, classified using Unified Soil Classification System guidelines, and screened for organic vapors. The samples will be placed in appropriate sample containers, labeled and kept in coolers below four degrees centigrade for transportation under chain-of-custody to a state certified laboratory for analysis.

Proposed Borings PB-11, PB-12, PB-13, PB-14, and PB-15

Proposed borings PB-11, PB-12, PB-13, PB-14, and PB-15 will be located around the former UST pit perimeter (Figure 6) for excavation limit determination. It is proposed to place these borings as close to the edge of the excavation as possible, without becoming a safety issue. It is expected that these borings will be approximately five feet from the edge of the excavation. Proposed boring PB-11 will be located at the eastern side of the pit and subsequent borings will be located around the perimeter of the pit in a clockwise direction. Only one boring is proposed on the east side of the excavation and no borings are proposed on the north side of the excavation, as previous borings in these locations have conducted the delineation activities.

Proposed Borings PB-16, PB-17 and PB-18

Proposed boring PB-16, PB-17 and PB-18 will be located along the piping runs and the dispenser island and to the west of the excavated gasoline UST (Figure 6). Proposed borings PB-16, PB-17, and PB-18 will be sampled initially at two (2) feet below the product line, after which sampling will be conducted at four-foot intervals.

5.2 Hand Auger Sampling

Six (6) proposed hand-augered horizontal borings (PB-19, PB-20, PB-21, PB-22, PB-23, and PB-24) will be drilled by SounPacific staff using a stainless steel quick-release hand-auger (Figure 6). The proposed borings are to be located within the UST pit into excavation sidewalls,

at depths of between six (6) and eight (8) feet bgs. The proposed borings will be drilled to a maximum length of three (3) feet in depth, with samples being collected at one (1) and three (3) feet.

5.3 Soil Analytical Methods

All collected samples will be screened in the field using a Photo Ionization Detection meter, with the PID value recorded on the boring log. PID analysis will be conducted by half filling a quart sealable plastic bag, allowing vapors to collect in the headspace area of the bag for a minimum of 10 minutes, prior to inserting the PID probe into the bag and recording the PID LED reading. Based on the results of the PID screening select samples will be submitted for laboratory analysis. Samples considered for laboratory analysis, will have PID values greater than 100 ppm. Samples which have PID values less than 100 ppm will be considered as having TPH values less than the standard clean-up standard of 100 ppm by laboratory analysis. If a borehole is found to have PID values in excess of 300 ppm, a step-out boring will be considered. A minimum of one soil sample, per boring, will be selected for laboratory analysis, even if the PID values for all collected samples are less than 100 ppm. All soil samples selected for laboratory analysis will be collected following the EPA extraction guidelines **SW 846 Method 5035** and analyzed for TPHg, BTXE, and five (5) fuel oxygenates by **EPA Method 8260B** and for TPHd and TPHmo by **EPA Method 8015**.

6.0 GROUNDWATER CONTAMINATION ASSESSMENT PLAN

6.1 Groundwater Sampling

Historical groundwater sampling of grab groundwater samples along with the ongoing groundwater monitoring has determined that the groundwater in the vicinity of the former UST is impacted with TPHg and the associated hydrocarbons. Therefore, grab groundwater samples will be only be collected from boreholes B-11 (at the east end of the UST pit) and B-21 (under the dispenser island to evaluate the extent of the groundwater contamination. A temporary well

point will be installed for water level measurements and sample collection. The temporary well points will be constructed using a small diameter PVC screened well casing. The temporary well casings will be removed within 72 hours and the boreholes will be grouted in accordance to industry standards. No groundwater samples will be obtained from any of the other vertical borings or the horizontal boreholes.

6.2 Groundwater Analytical Methods

The groundwater samples will be analyzed for TPHg, BTXE, and five-oxygenates by **EPA Method 8260B** and analyzed for TPHd and TPHmo by **EPA Method 8015**.

7.0 QUALITY CONTROL AND ASSURANCE MEASURES

Groundwater and soil sample quality control and assurance measures will include either a trip blank consisting of a sample container filled at the laboratory with distilled (blank) water, a field blank consisting of a clean sample container filled by SounPacific personnel under field conditions with distilled water, or a field duplicate groundwater sample. The blank or field duplicate sample will be subjected to the same analyses as groundwater samples.

8.0 SITE SANITATION PROCEDURES

Drill rods, samplers, and reusable bailers will be decontaminated between use by either steam cleaning or an Alconox® wash followed by a double rinse in clean tap water to prevent cross-contamination. Soil cuttings and auger/sampler rinsate will be stored on-site in labeled D.O.T. 17E/17H 55-gallons drum pending future removal and disposal. All drill cutting and groundwater extracted from wells and boreholes will be stored on site in D.O.T. 17E/17H 55-gallon drums. Laboratory analyses will be used to establish proper disposal procedures for cuttings and purge/development waters. Rinsate generated from steam cleaning drilling, development, and sampling equipment will be contained in a portable washbasin and pumped into 55-gallon drums for storage before disposal.

9.0 PROPOSED TIME SCHEDULE

The schedule for the subsurface investigation at the Glendale 76 facility is as follows:

- Within two (2) weeks of *Workplan* approval the subcontractors will be contacted and the field work scheduled.
- Field Work is expected to be completed within a two day period.
- Laboratory analysis will be conducted on a normal turnaround basis with the laboratory analytical results received within four (4) weeks of completing the field work. Upon receipt of the analytical data, the results will be reviewed and tabulated, and HCDEH will be provided with the preliminary data.
- Within eight (8) weeks of the receipt of the analytical data, HCDEH will be provided with the formal Report of Findings.

Project implementation dates are subject to agency approval, permitting, and equipment scheduling. If there is a deviation from the proposed schedule, all concerned parties will be notified at least five (5) days before the proposed initiation. A two (2) day drilling program is expected. Laboratory results are expected four (4) weeks after submitting samples, unless an accelerated time schedule is requested. The Report of Findings will encompass the field investigation, present findings, and recommendations regarding future activities at the site.

Tables

Table 1
Water Levels
 Glendale 76
 1497 Glendale Road
 Arcata, California 95521

Sample Location	Date	Depth to Bottom/ Feet BTOC	Survey Height/ Feet Above MSL	Depth to Water/ Feet BTOC	Adjusted Elevation/ Feet Above MSL	Thickness of Floating Product/ Feet
MW-1	5/3/2002	19.08	96.47	12.25	84.22	0.00
	6/10/2002	19.22	96.47	13.91	82.56	0.00
	7/12/2002	19.40	96.47	15.58	80.89	0.00
	8/17/2002	18.99	96.47	16.45	80.02	0.00
	9/11/2002	18.97	96.47	16.71	79.76	0.00
	10/11/2002	18.98	96.47	16.92	79.55	0.00
	11/15/2002	18.99	96.47	16.76	79.71	0.00
	12/16/2002	19.29	96.47	14.94	81.53	0.00
	1/12/2003	18.99	96.47	8.74	87.73	0.00
	2/14/2003	18.99	96.47	10.90	85.57	0.00
	3/17/2003	19.29	96.47	11.17	85.30	0.00
	4/12/2003	18.99	96.47	8.89	87.58	0.00
	7/14/2003	19.17	96.47	15.09	81.38	0.00
	10/21/2003	19.17	96.47	17.02	79.45	0.00
	1/16/2004	19.17	96.47	9.44	87.03	0.00
	4/23/2004	19.17	96.47	12.02	84.45	0.00
	7/31/2004	19.18	96.47	15.15	81.32	0.00
	10/30/2004	18.90	96.47	14.51	81.96	0.00
	1/23/2005	19.19	96.47	10.33	86.14	0.00
	4/30/2005	19.19	96.47	10.94	85.53	0.00
MW-2	5/3/2002	19.15	96.45	12.65	83.80	0.00
	6/10/2002	19.02	96.45	14.30	82.15	0.00
	7/12/2002	19.00	96.45	15.95	80.50	0.00
	8/17/2002	18.86	96.45	16.50	79.95	0.00
	9/11/2002	18.90	96.45	16.79	79.66	0.00
	10/11/2002	18.84	96.45	17.01	79.44	0.00
	11/15/2002	18.87	96.45	16.86	79.59	0.00
	12/16/2002	19.14	96.45	15.35	81.10	0.00
	1/12/2003	18.89	96.45	9.16	87.29	0.00
	2/14/2003	18.91	96.45	11.12	85.33	0.00
	3/17/2003	19.14	96.45	11.47	84.98	0.00
	4/12/2003	18.89	96.45	9.24	87.21	0.00
	7/14/2003	19.04	96.45	15.26	81.19	0.00
	10/21/2003	19.04	96.45	17.10	79.35	0.00
	1/16/2004	19.04	96.45	9.78	86.67	0.00
	4/23/2004	19.04	96.45	12.31	84.14	0.00
	7/31/2004	18.99	96.45	15.29	81.16	0.00
	10/30/2004	18.60	96.45	14.71	81.74	0.00
	1/23/2005	18.90	96.45	10.62	85.83	0.00
	4/30/2005	18.70	96.45	11.16	85.29	0.00

Table 1 (cont.)
Water Levels
 Glendale 76
 1497 Glendale Road
 Arcata, California 95521

Sample Location	Date	Depth to Bottom/ Feet BTOC	Survey Height/ Feet Above MSL	Depth to Water/ Feet BTOC	Adjusted Elevation/ Feet Above MSL	Thickness of Floating Product/ Feet
MW-3	5/3/2002	19.22	96.08	12.20	83.88	0.00
	6/10/2002	19.20	96.08	13.70	82.38	0.00
	7/12/2002	19.21	96.08	15.20	80.88	0.00
	8/17/2002	19.04	96.08	16.04	80.04	0.00
	9/11/2002	19.10	96.08	16.28	79.80	0.00
	10/11/2002	19.02	96.08	16.48	79.60	0.00
	11/15/2002	19.20	96.08	16.40	79.68	0.00
	12/16/2002	19.45	96.08	11.59	84.49	0.00
	1/12/2003	19.17	96.08	8.46	87.62	0.00
	2/14/2003	19.17	96.08	10.81	85.27	0.00
	3/17/2003	19.45	96.08	10.98	85.10	0.00
	4/12/2003	19.17	96.08	8.64	87.44	0.00
	7/14/2003	19.37	96.08	14.76	81.32	0.00
	10/21/2003	19.37	96.08	16.61	79.47	0.00
	1/16/2004	19.37	96.08	9.21	86.87	0.00
	4/23/2004	19.37	96.08	11.74	84.34	0.00
	7/31/2004	19.44	96.08	14.72	81.36	0.00
	10/30/2004	19.13	96.08	14.21	81.87	0.00
MW-4	1/23/2005	19.43	96.08	10.18	85.90	0.00
	4/30/2005	19.35	96.08	10.70	85.38	0.00
	5/3/2002	19.15	96.27	11.84	84.43	0.00
	6/10/2002	19.13	96.27	13.46	82.81	0.00
	7/12/2002	19.10	96.27	15.08	81.19	0.00
	8/17/2002	19.00	96.27	16.04	80.23	0.00
	9/11/2002	19.00	96.27	16.33	79.94	0.00
	10/11/2002	19.00	96.27	16.50	79.77	0.00
	11/15/2002	19.12	96.27	16.41	79.86	0.00
	12/16/2002	19.30	96.27	13.25	83.02	0.00
	1/12/2003	19.07	96.27	8.21	88.06	0.00
	2/14/2003	19.11	96.27	10.53	85.74	0.00
	3/17/2003	13.25	96.27	10.64	85.63	0.00
	4/12/2003	19.07	96.27	8.37	87.90	0.00
	7/14/2003	19.27	96.27	14.69	81.58	0.00
	10/21/2003	19.27	96.27	16.67	79.60	0.00
	1/16/2004	19.27	96.27	8.95	87.32	0.00
	4/23/2004	19.27	96.27	11.51	84.76	0.00
	7/31/2004	19.36	96.27	14.70	81.57	0.00
	10/30/2004	19.07	96.27	14.15	82.12	0.00
	1/23/2005	19.35	96.27	9.97	86.30	0.00
	4/30/2005	19.28	96.27	10.60	85.67	0.00

Notes:

BTOC: Below Top of Casing

MSL: Mean Sea Level

Table 2
Soil Analytical Results
 Glendale 76
 1497 Glendale Road
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	Lead (ppm)
SB-1	SB-1 @ 8.5	1/13/1998	ND < 5	0.07	ND < 0.03	0.06	ND < 0.03	0.4	----	----	----	----	ND < 1	----
SB-2	SB-2 @ 9.5	1/13/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	ND < 1	----
SB-3	SB-3 @ 9.5	1/13/1998	ND < 20	0.6	0.5	0.6	0.4	17	----	----	----	----	ND < 1	----
SB-4	SB-4 @ 2.5	1/13/1998	ND < 1	0.065	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1	----
SB-4	SB-4 @ 9.5	1/13/1998	ND < 2	ND < 0.01	ND < 0.01	0.01	ND < 0.01	0.2	----	----	----	----	ND < 1	----
SB-5	SB-5 @ 2.5	1/15/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	4	----
SB-6	SB-6 @ 2.5	1/15/1998	ND < 5	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.03	ND < 0.3	----	----	----	----	3	----
SB-7	SB-7 @ 2.5	1/15/1998	ND < 1	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	----	----	----	----	ND < 1	----
B-8	SB-8 @ 4'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-8	SB-8 @ 8'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-8	SB-8 @ 12'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-8	SB-8 @ 16'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-9	SB-9 @ 4'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	0.12
B-9	SB-9 @ 8'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-9	SB-9 @ 12'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-9	SB-9 @ 16'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-10	SB-10 @ 4'	4/25/2002	ND < 1	0.014	ND < 0.002	ND < 0.006	0.003	0.528	ND < 0.005	0.064	ND < 0.005	ND < 0.02	----	ND < 0.10
B-10	SB-10 @ 8'	4/25/2002	2	0.011	ND < 0.002	ND < 0.006	0.018	1.58	ND < 0.005	0.216	ND < 0.005	ND < 0.02	----	ND < 0.10
B-10	SB-10 @ 12'	4/25/2002	4	0.11	0.021	0.156	0.055	2.11	ND < 0.005	0.292	ND < 0.005	ND < 0.02	----	ND < 0.10
B-10	SB-10 @ 16'	4/25/2002	4	0.086	0.314	0.204	0.058	1.1	ND < 0.005	0.156	ND < 0.005	ND < 0.02	----	ND < 0.10
B-11	SB-11 @ 4'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-11	SB-11 @ 8'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-11	SB-11 @ 12'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-11	SB-11 @ 16'	4/24/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-12	SB-12 @ 4'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.006	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-12	SB-12 @ 8'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.074	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
B-12	SB-12 @ 12'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.148	ND < 0.005	0.017	ND < 0.005	ND < 0.02	----	ND < 0.10
B-12	SB-12 @ 16'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.051	ND < 0.005	0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-1	MWSB-1 @ 4'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.141	ND < 0.005	0.009	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-1	MWSB-1 @ 8'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.16	ND < 0.005	0.013	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-1	MWSB-1 @ 12'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.744	ND < 0.005	0.114	ND < 0.005	ND < 0.02	----	ND < 0.10

Table 2 (cont.)
Soil Analytical Results
 Glendale 76
 1497 Glendale Road
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	Lead (ppm)
MW-2	MWSB-2 @ 4'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-2	MWSB-2 @ 8'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.006	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-2	MWSB-2 @ 12'	4/26/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	0.034	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-3	MWSB-3 @ 4'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-3	MWSB-3 @ 8'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-3	MWSB-3 @ 12'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-4	MWSB-4 @ 4'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-4	MWSB-4 @ 8'	4/25/2002	ND < 1	ND < 0.002	ND < 0.002	ND < 0.006	ND < 0.002	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.02	----	ND < 0.10
MW-4	MWSB-4 @ 12'	4/25/2002	2	0.104	0.07	0.454	0.037	0.618	ND < 0.005	0.055	ND < 0.005	0.436	----	ND < 0.10
1N	UST PIT @ 11'	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.055	ND < 0.005	0.014	ND < 0.005	ND < 0.050	ND < 1.0	----
1S	UST PIT @ 11'	10/27/2004	ND < 1.0	0.011	ND < 0.005	ND < 0.015	ND < 0.005	0.091	ND < 0.005	0.017	ND < 0.005	ND < 0.050	4.3	----
2N	UST PIT @ 11'	10/27/2004	ND < 1.3	0.054	0.093	0.176	0.043	0.50	ND < 0.013	0.17	ND < 0.013	ND < 0.13	3.5	----
2S	UST PIT @ 11'	10/27/2004	900	ND < 1.0	ND < 1.0	21	9.3	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	120*	----
3N	UST PIT @ 11'	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.043	ND < 0.005	0.016	ND < 0.005	ND < 0.050	3.3	----
3S	UST PIT @ 11'	10/27/2004	18	0.035	ND < 0.025	0.23	0.095	0.24	ND < 0.025	0.079	ND < 0.025	ND < 0.25	3.9	----
4N	UST PIT @ 11'	10/27/2004	320	2.5	18	37	7.2	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 5.0	14*	----
4S	UST PIT @ 11'	10/27/2004	600	ND < 0.50	3.2	53	11	ND < 0.50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 5.0	13*	----
SW-W	UST PIT @ 6'	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	0.046	ND < 0.005	0.011	ND < 0.005	ND < 0.050	ND < 1.0	----
SW-S	UST PIT @ 6'	10/27/2004	ND < 1.0	ND < 0.005	ND < 0.005	0.024	0.006	0.072	ND < 0.005	0.017	ND < 0.005	ND < 0.050	1.8	----

notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

ppm: parts per million = µg/g = mg/kg = 1000 µg/kg

ND: Not detected. Sample was detected below the method detection limit as shown.

*: The sample chromatograph does not match the standard diesel chromatogram. All peaks were integrated within the diesel range. The result is an estimated value.

Table 3
Groundwater Analytical Results from Boreholes
 Glendale 76
 1497 Glendale Road
 Arcata, California 95521

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHD (ppb)
SB-1	SB-1-GW	1/13/1998	210	27	8.3	6	1.3	100	----	----	----	----	50
SB-2	SB-2-GW	1/13/1998	290	1.4	ND < 0.5	ND < 0.5	ND < 0.5	590	----	----	----	----	100
SB-3	SB-3-GW	1/13/1998	79,000	1,400	4,300	21,000	4,600	20,000	----	----	----	----	ND < 200
SB-4	SB-4-GW	1/13/1998	1,400	11	20	40	8	2,000	----	----	----	----	ND < 50
B-8	SBGW-8 @ 16'	4/25/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	42.9	ND < 0.5	8.6	ND < 0.5	ND < 100	----
B-9	SBGW-9 @ 16'	4/24/2002	152	1.9	ND < 0.3	ND < 0.6	ND < 0.3	50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	----
B-10	SBGW-10 @ 16'	4/25/2002	150,000	13,700	43,400	10,600	2,100	198,000	ND < 5.0	33,300	ND < 5.0	ND < 1,000	----
B-11	SBGW-11 @ 16'	4/24/2002	20,700	2,090	7.4	171	9.9	29,000	ND < 0.5	6,710	ND < 0.5	ND < 50	----
B-12	SBGW-12 @ 16'	4/25/2002	978	10.1	0.4	1.8	ND < 0.3	1,470	ND < 0.5	169	ND < 0.5	ND < 100	----

notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TPHmo: Total petroleum hydrocarbons as motor oil.

TBA: Tertiary butanol

TPHD: Total petroleum hydrocarbons as diesel.

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm.

ND: Not detected. Sample was detected below the method detection limit as shown.

Table 4 **Groundwater Analytical Results**

Glendale 76
1497 Glendale Road
Arcata, California 95521

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-1	Well Installation	Second Quarter	5/3/2002	8,605	2.9	ND < 0.3	ND < 0.6	ND < 0.3	3,270	ND < 0.5	559	ND < 0.5	ND < 100	NT	NT
	First Quarterly	Third Quarter	7/12/2002	345	0.9	ND < 0.3	ND < 0.6	ND < 0.3	257	ND < 0.5	53.4	ND < 0.5	ND < 100	NT	NT
	Second Quarterly	Fourth Quarter	10/11/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 12.0	ND < 6.0	200	ND < 10	38.6	ND < 10	ND < 2,000	ND < 50	ND < 50
	Third Quarterly	First Quarter	1/12/2003	5,900	18	0.7	92	1.0	1,100	ND < 0.5	160	ND < 0.5	120	240	ND < 500
	Fourth Quarterly	Second Quarter	4/12/2003	420	8.7	ND < 0.5	10	0.9	1,000	ND < 0.5	130	ND < 0.5	130	ND < 50	ND < 500
	Fifth Quarterly	Third Quarter	7/14/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	79	ND < 0.5	15	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Sixth Quarterly	Fourth Quarter	10/21/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	20	ND < 0.5	4.0	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Seventh Quarterly	First Quarter	1/16/2004	190	3.6	ND < 0.5	12	1.4	450	ND < 0.5	71	ND < 0.5	21	ND < 50	ND < 500
	Eighth Quarterly	Second Quarter	4/23/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	31	ND < 0.5	7.6	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Ninth Quarterly	Third Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	19	ND < 0.5	3.9	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Tenth Quarterly	Fourth Quarter	10/30/2004	ND < 50	ND < 0.5	1.1	ND < 1.0	ND < 0.5	18	ND < 0.5	4.3	ND < 0.5	ND < 5.0	92	ND < 500
	Eleventh Quarterly	first Quarter	1/23/2005	359	2.7	ND < 2.5	ND < 5.0	ND < 2.5	315	ND < 2.5	55.6	ND < 25.0	ND < 250	110	58
	Twelve Quarterly	Second Quarter	4/30/2005	389	ND < 2.0	ND < 2.0	ND < 4.0	ND < 2.0	277	-----	-----	-----	-----	68	77
MW-2	Well Installation	Second Quarter	5/3/2002	1,860	28.8	0.9	1.4	0.6	1,060	ND < 0.5	204	ND < 0.5	ND < 100	NT	NT
	First Quarterly	Third Quarter	7/12/2002	684	10.5	ND < 0.3	3.8	ND < 0.3	422	ND < 0.5	100	ND < 0.5	ND < 100	NT	NT
	Second Quarterly	Fourth Quarter	10/11/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 12.0	ND < 6.0	144	ND < 10	27.0	ND < 10	ND < 2,000	ND < 50	ND < 50
	Third Quarterly	First Quarter	1/12/2003	490	35	ND < 0.5	10.7	ND < 0.5	640	ND < 0.5	110	ND < 0.5	79	60	ND < 500
	Fourth Quarterly	Second Quarter	4/12/2003	180	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	240	ND < 0.5	49	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fifth Quarterly	Third Quarter	7/14/2003	170	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	310	ND < 0.5	59	ND < 0.5	59	ND < 50	ND < 500
	Sixth Quarterly	Fourth Quarter	10/21/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	16	ND < 0.5	3.0	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Seventh Quarterly	First Quarter	1/16/2004	120	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	160	ND < 0.5	30	ND < 0.5	18	ND < 50	ND < 500
	Eighth Quarterly	Second Quarter	4/23/2004	ND < 500	ND < 5.0	ND < 5.0	ND < 10.0	ND < 5.0	180	ND < 5.0	40	ND < 5.0	ND < 50	ND < 50	ND < 500
	Ninth Quarterly	Third Quarter	7/31/2004	73	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	86	ND < 0.5	19	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Tenth Quarterly	Fourth Quarter	10/30/2004	71	ND < 0.5	0.7	ND < 1.0	ND < 0.5	50	ND < 0.5	10	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Eleventh Quarterly	First Quarter	1/23/2005	122	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	102	ND < 0.5	24.2	ND < 5.0	ND < 50.0	ND < 50	81
	Twelve Quarterly	Second Quarter	4/30/2005	ND < 60	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	54.7	----	----	----	----	ND < 50	100

Table 4 (cont.)
Groundwater Analytical Results

Glendale 76
1497 Glendale Road
Arcata, California 95521

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)
MW-3	Well Installation	Second Quarter	5/3/2002	8,900	387	378	743	352	1,080	ND < 0.5	37.2	ND < 0.5	ND < 100	NT	NT
	First Quarterly	Third Quarter	7/12/2002	5,720	376	94.3	258	230	1,240	ND < 5.0	285	ND < 5.0	ND < 1,000	NT	NT
	Second Quarterly	Fourth Quarter	10/11/2002	ND < 5,000	318	ND < 30.0	ND < 60.0	ND < 30.0	1,270	ND < 100	369	ND < 100	ND < 10,000	381	ND < 50
	Third Quarterly	First Quarter	1/12/2003	1,100	19	62	48	18	38	ND < 0.5	8.8	ND < 0.5	ND < 5.0	110	ND < 500
	Fourth Quarterly	Second Quarter	4/12/2003	300	21	45	30.4	14	34	ND < 0.5	9.2	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Fifth Quarterly	Third Quarter	7/14/2003	2,000	170	11	44	58	330	ND < 5.0	97	ND < 5.0	ND < 50	210	ND < 500
	Sixth Quarterly	Fourth Quarter	10/21/2003	690	42	ND < 5.0	ND < 10.0	ND < 5.0	230	ND < 5.0	58	ND < 5.0	ND < 50	74	ND < 500
	Seventh Quarterly	First Quarter	1/16/2004	150	5.2	12	9.2	5.9	6.6	ND < 0.5	2.1	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Eighth Quarterly	Second Quarter	4/23/2004	ND < 50	0.5	ND < 0.5	0.7	0.7	1.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Ninth Quarterly	Third Quarter	7/31/2004	700	7.6	ND < 0.5	ND < 1.0	2.4	110	ND < 0.5	35	ND < 0.5	42	110	ND < 500
	Tenth Quarterly	Fourth Quarter	1/27/2005	1,000	14	9.8	14	8.8	23	ND < 0.5	6.9	ND < 0.5	ND < 5.0	130	ND < 500
	Eleventh Quarterly	First Quarter	1/23/2005	498	102	7.2	68.9	3.4	90.6	ND < 0.5	19.5	ND < 5.0	ND < 50.0	ND < 50	ND < 50
	Twelve Quarterly	Second Quarter	4/30/2005	7,030	14.6	635	1,890	306	21.0	----	----	----	----	ND < 50	52
MW-4	Well Installation	Second Quarter	5/3/2002	3,150	138	40	124	49.5	1,050	ND < 0.5	131	ND < 0.5	NT	NT	NT
	First Quarterly	Third Quarter	7/12/2002	2,850	256	17.5	181	167	1,820	ND < 0.5	241	ND < 0.5	ND < 100	NT	NT
	Second Quarterly	Fourth Quarter	10/11/2002	1,520	117	ND < 0.3	111	66.7	732	ND < 5.0	115	ND < 5.0	ND < 1,000	ND < 50	ND < 50
	Third Quarterly	First Quarter	1/12/2003	16,000	220	170	1,900	340	1,500	ND < 50	160	ND < 50	ND < 500	3,000	ND < 500
	Fourth Quarterly	Second Quarter	4/12/2003	ND < 1,000	210	180	1,320	430	1,100	ND < 50	130	ND < 50	ND < 500	3,800	ND < 500
	Fifth Quarterly	Third Quarter	7/14/2003	770	33	ND < 5.0	17	20	180	ND < 5.0	29	ND < 5.0	ND < 50	63	ND < 500
	Sixth Quarterly	Fourth Quarter	10/21/2003	970	80	ND < 5.0	7.8	21	540	ND < 5.0	85	ND < 5.0	ND < 50	260	ND < 500
	Seventh Quarterly	First Quarter	1/16/2004	4,200	90	29	710	220	550	ND < 5.0	73	ND < 5.0	420	ND < 50	ND < 500
	Eighth Quarterly	Second Quarter	4/23/2004	1,300	26	ND < 5.0	79	34	170	ND < 5.0	27	ND < 5.0	170	150	ND < 500
	Ninth Quarterly	Third Quarter	7/31/2004	78	2.9	ND < 0.5	ND < 1	1.1	12	ND < 0.5	1.9	ND < 0.5	ND < 5.0	ND < 50	ND < 500
	Tenth Quarterly	Fourth Quarter	10/30/2004	8,800	230	32	1,600	650	940	ND < 5.0	200	ND < 5.0	640	1,500	ND < 500
	Eleventh Quarterly	First Quarter	1/23/2005	872	24.2	2.3	109	57.0	312.0	ND < 1.2	30.6	ND < 12.5	198	585	52
	Twelve Quarterly	Second Quarter	4/30/2005	1,280	17.8	20.0	92.4	49.3	133	ND < 1.0	14.5	ND < 1.0	131	401	92

Notes:

TPHg: Total Petroleum Hydrocarbons as gasoline

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl Ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TBA: Tertiary butanol

TPHd: Total Petroleum Hydrocarbons as diesel

TPHmo: Total petroleum hydrocarbons as motor oil

ppb: parts per billion = µg/l = .001 mg/l = 0.001 ppm

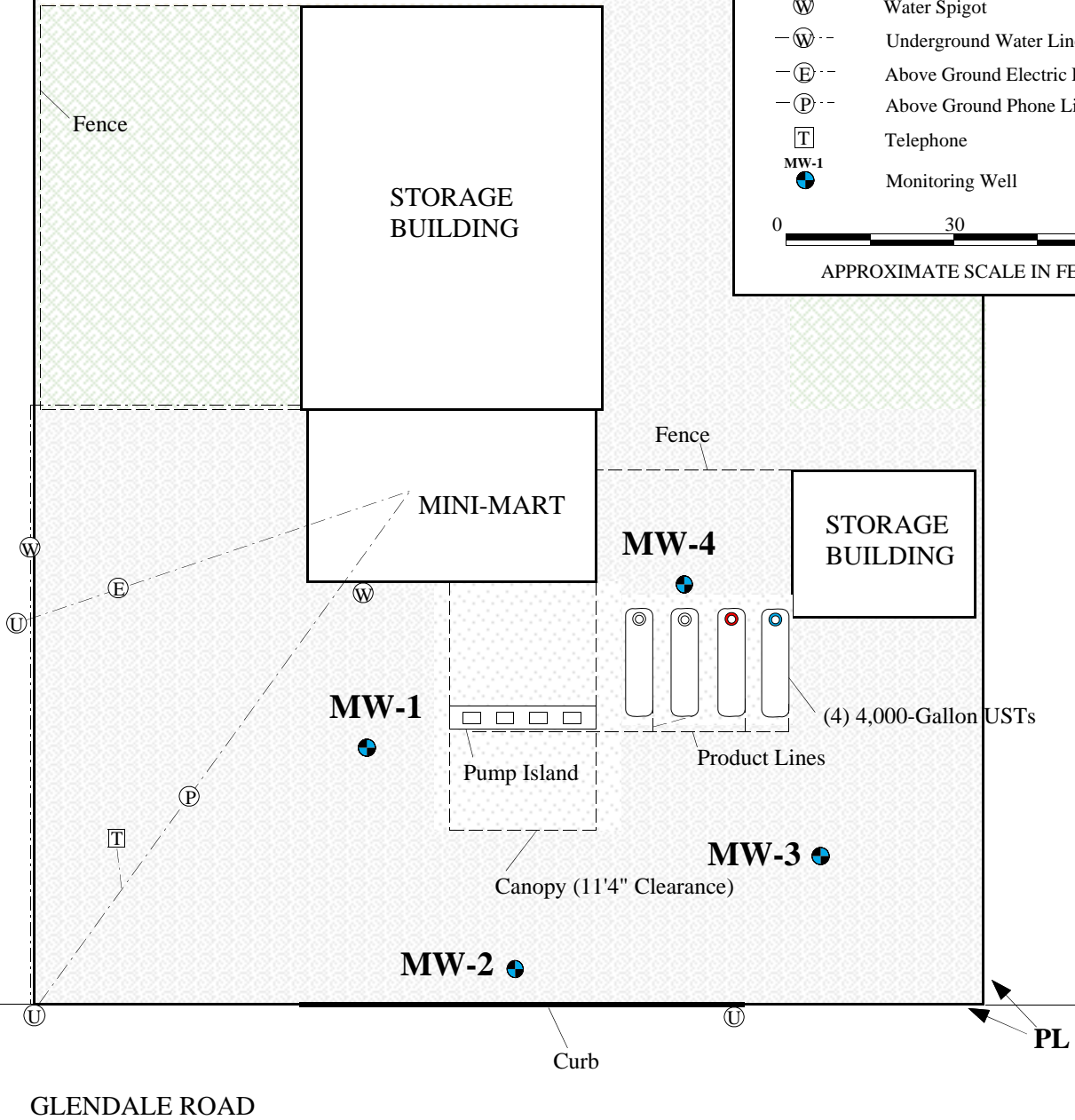
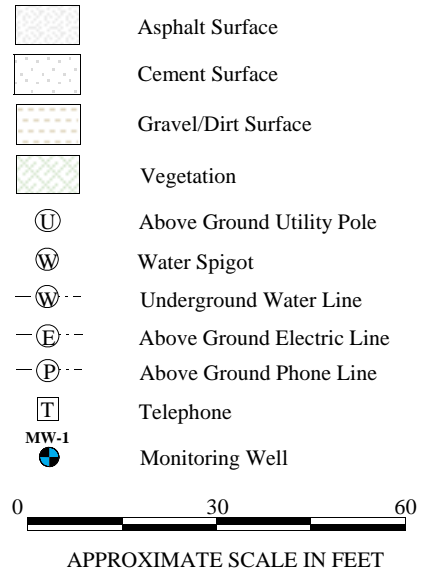
ND: Not detected. Sample was detected at or below the method detection limit as shown.

Figures



NORTH

LEGEND



SITE PLAN

Figure

2

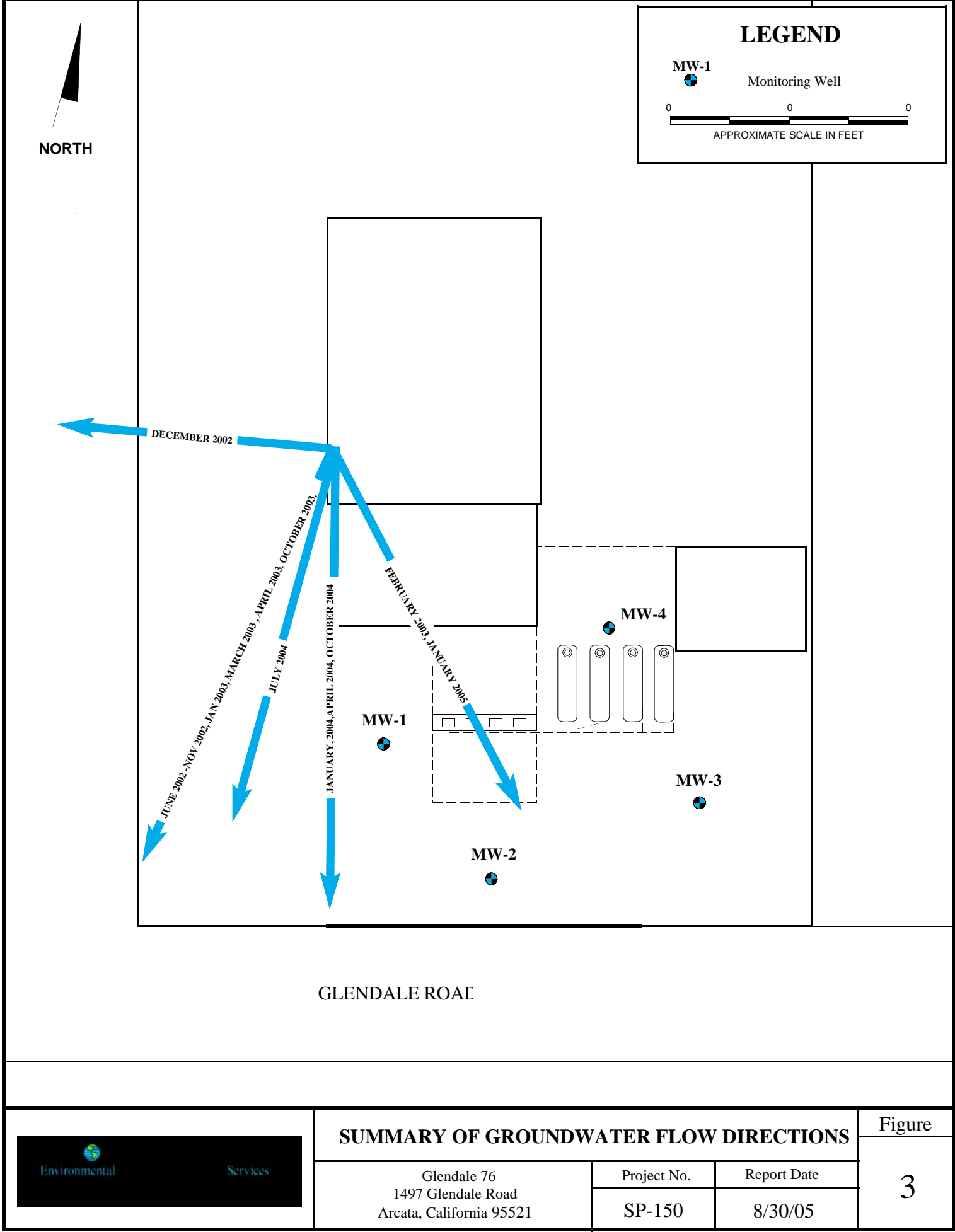
Glendale 76
1497 Glendale Road
Arcata, California 95521

Project No.
SP-150

Report Date
8/30/05

Environmental

Services



SUMMARY OF GROUNDWATER FLOW DIRECTIONS

Glendale 76
1497 Glendale Road
Arcata, California 95521

Project No.
SP-150

Report Date
8/30/05

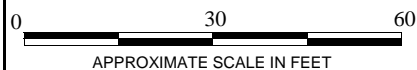
Figure
3



NORTH

LEGEND

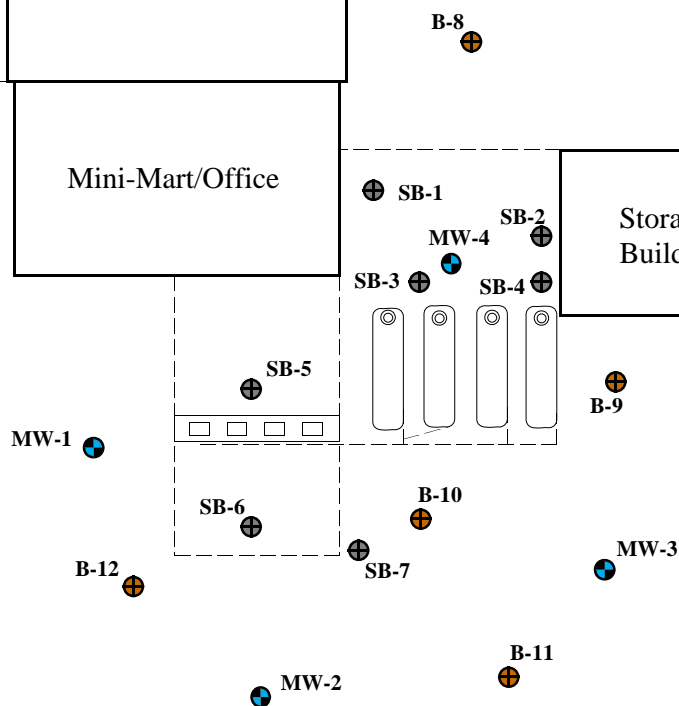
- SB-1 Soil Boring (1/98)
- B-1 Soil Boring (4/02)
- MW-1 Monitoring Well



Storage Building

Mini-Mart/Office

Storage Building



Glendale Road

PREVIOUS INVESTIGATIONS

Glendale 76
1497 Glendale Road
Arcata, California 95521

Project No.

SP-150

Report Date

8/30/05

Figure

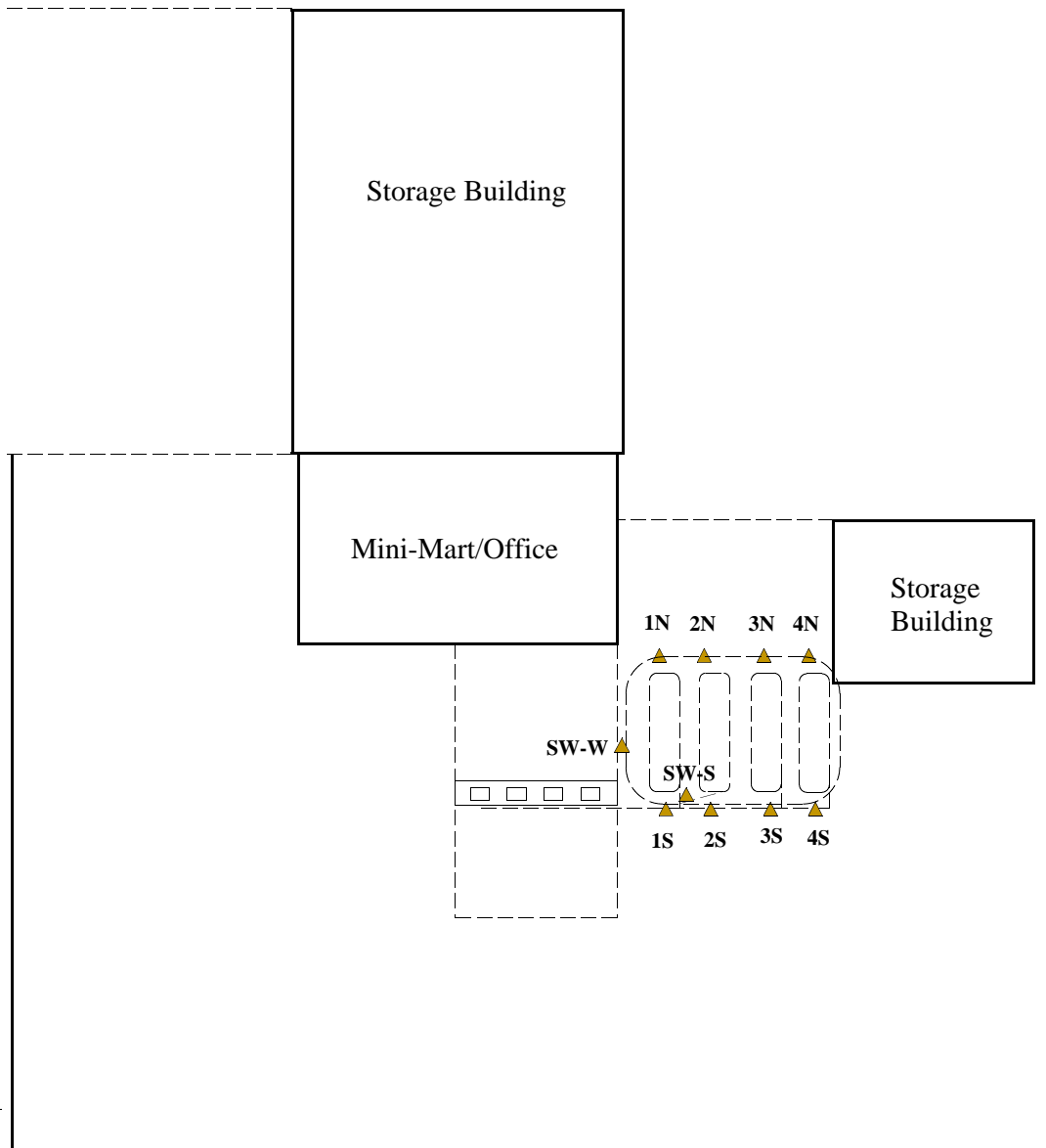
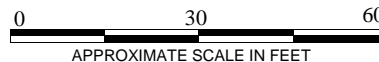
4

Environmental
Services

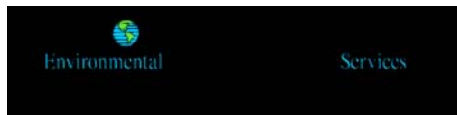


LEGEND

1N Soil Sample from UST Removal (10/04)



Glendale Road



UST REMOVAL SAMPLE LOCATIONS MAP

Glendale 76
1497 Glendale Road
Arcata, California 95521

Project No.

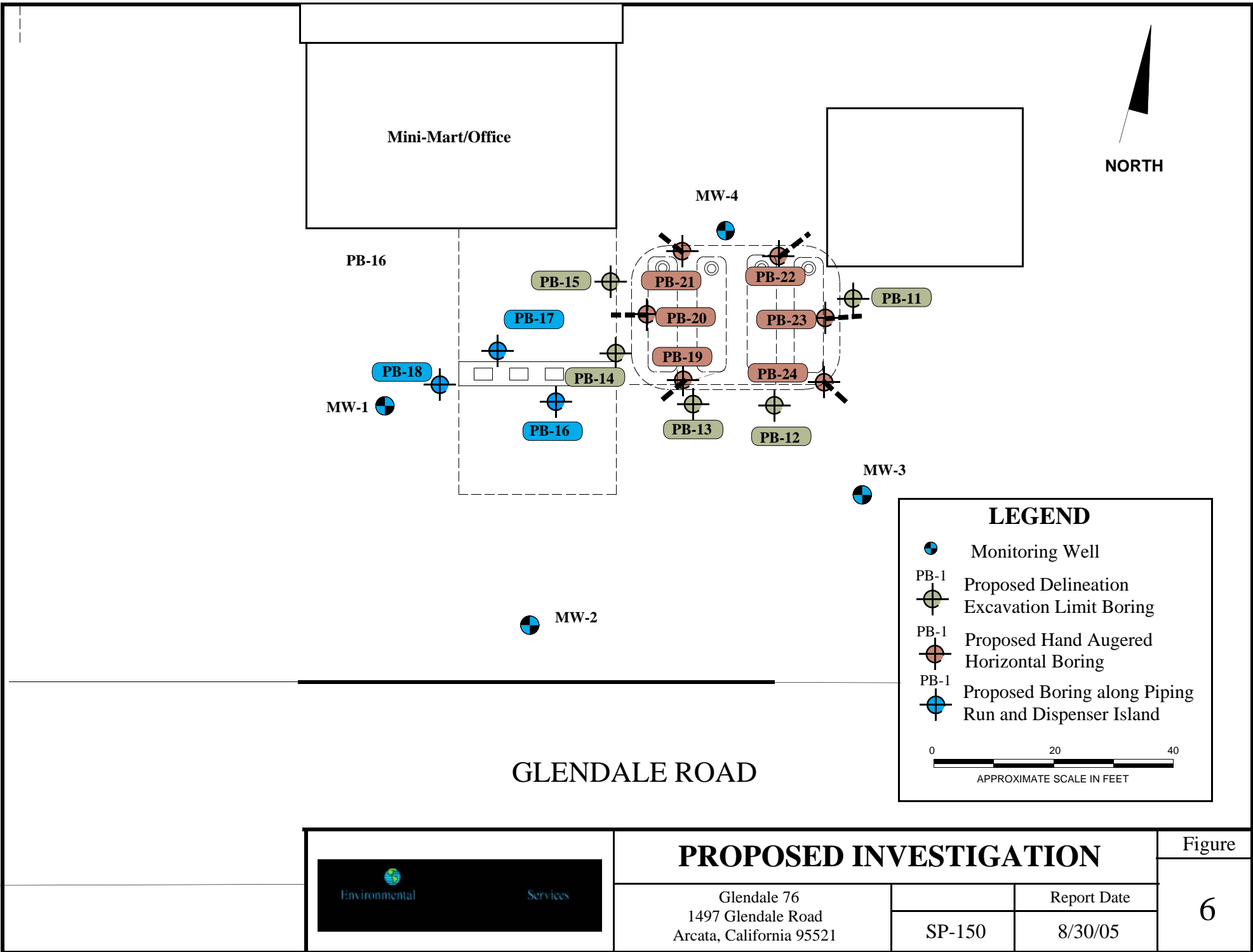
SP-150

Report Date

8/30/05

Figure

5



Appendix A

ANALYSIS REPORT

Attention: Andy Malone
SounPacific Environmental Services
P.O. Box 13
Kneeland, CA 95549
Project: Glendale 76 / SP-150
Method: EPA 8260B

Date Received: 10/27/04
Date Analyzed: 11/03/04

Client Sample I.D.	1 N		1 S		2 N		2 S		3 N	
Date Sampled	10/27/04		10/27/04		10/27/04		10/27/04		10/27/04	
LAB. NO.	0410132-01		0410132-02		0410132-03		0410132-04		0410132-05	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
TPH as Gasoline	1.0	ND	1.0	ND	1.3	ND	100	890	1.0	ND
Benzene	0.005	ND	0.005	0.011	0.013	0.054	1.0	ND	0.005	ND
Toluene	0.005	ND	0.005	ND	0.013	0.093	1.0	ND	0.005	ND
Ethylbenzene	0.005	ND	0.005	ND	0.013	0.043	1.0	9.4	0.005	ND
m.p-xylene	0.010	ND	0.010	ND	0.013	0.14	2.0	21	0.010	ND
o-xylene	0.005	ND	0.005	ND	0.013	0.036	1.0	ND	0.005	ND
tert-Butanol	0.050	ND	0.050	ND	0.13	ND	10	ND	0.050	ND
MTBE	0.005	0.055	0.005	0.091	0.013	0.50	1.0	ND	0.005	0.043
Diisopropyl ether	0.005	ND	0.005	ND	0.013	ND	1.0	ND	0.005	ND
Ethyl tert-butyl ether	0.005	ND	0.005	ND	0.013	ND	1.0	ND	0.005	ND
tert-Amyl methyl ether	0.005	0.014	0.005	0.017	0.013	0.17	1.0	ND	0.005	0.016
SURROGATE %RECOVERY										
Dibromoflouromethane	96		97		93		91		99	
Toluene-d8	97		97		100		104		96	
4-Bromofluorobenzene	104		110		100		100		94	

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

R/L = Reporting Limit

Water samples reported in µg/L

Laboratory Representative

11/12/04
Date Reported

ANALYSIS REPORT

Attention: Andy Malone
SounPacific Environmental Services
P.O. Box 13
Kneeland, CA 95549
Project: Glendale 76 / SP-150
Method: EPA 8260B

Date Received: 10/27/04
Date Analyzed: 11/03/04

Client Sample I.D.	3 S		4 N		4 S		SW-W		SW-S	
Date Sampled	10/27/04		10/27/04		10/27/04		10/27/04		10/27/04	
LAB. NO.	0410132-06		0410132-07		0410132-08		0410132-09		0410132-10	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
TPH as Gasoline	2.5	18	50	320	50	600	1.0	ND	1.0	ND
Benzene	0.025	0.035	0.5	2.5	0.50	ND	0.005	ND	0.005	ND
Toluene	0.025	ND	0.5	18	0.50	3.2	0.005	ND	0.005	ND
Ethylbenzene	0.025	0.095	0.5	7.2	0.50	11	0.005	ND	0.005	0.006
m.p-xylene	0.05	0.23	1.0	27	1.0	37	0.010	ND	0.010	0.019
o-xylene	0.025	ND	0.5	10	0.50	16	0.005	ND	0.005	0.005
tert-Butanol	0.25	ND	5.0	ND	5.0	ND	0.050	ND	0.050	ND
MTBE	0.025	0.24	0.50	ND	0.50	ND	0.005	0.046	0.005	0.072
Diisopropyl ether	0.025	ND	0.50	ND	0.50	ND	0.005	ND	0.005	ND
Ethyl tert-butyl ether	0.025	ND	0.50	ND	0.50	ND	0.005	ND	0.005	ND
tert-Amyl methyl ether	0.025	0.079	0.50	ND	0.50	ND	0.005	0.011	0.005	0.017
SURROGATE %RECOVERY										
Dibromoflouromethane	95		85		86		89		92	
Toluene-d8	100		100		104		94		99	
4-Bromofluorobenzene	103		103		95		108		100	

QA/QC %RECOVERY			
	LCS	MS	MSD
1,1-Dichloroethene	112	112	107
Benzene	94	115	111
Trichloroethene	94	118	115
Toluene	92	116	116
Chlorobenzene	97	112	112

QA/QC Analyzed: 11/03/04

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

R/L = Reporting Limit

Water samples reported in µg/L

Laboratory Representative

11/12/04
Date Reported

ANALYSIS REPORT

Attention: Andy Malone
SounPacific Environmental Services
P.O. Box 13
Kneeland, CA 95549
Project: Glendale 76 / SP-150
Method: EPA 8015m

Date Received: 10/27/04
Date Analyzed: 11/09,11/04

Client Sample I.D.	1 N		1 S		2 N		2 S		3 N	
Date Sampled	10/27/04		10/27/04		10/27/04		10/27/04		10/27/04	
LAB. NO.	0410132-01		0410132-02		0410132-03		0410132-04		0410132-05	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
TPH as Diesel	1.0	ND	1.0	4.3	1.0	3.5	1.0	120	1.0	3.3

Client Sample I.D.	3 S		4 N		4 S		SW-W		SW-S	
Date Sampled	10/27/04		10/27/04		10/27/04		10/27/04		10/27/04	
LAB. NO.	0410132-06		0410132-07		0410132-08		0410132-09		0410132-10	
ANALYTE	R/L	Results	R/L	Results	R/L	Results	R/L	Results	R/L	Results
TPH as Diesel	1.0	3.9	1.0	14*	1.0	13*	1.0	ND	1.0	1.8

QA/QC %RECOVERY		
	LCS	LCSD
TPH as Diesel	78	84

QA/QC Analyzed: 11/11/04

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

R/L = Reporting Limit

Soil samples reported in mg/kg

* The sample chromatogram does not match the standard diesel chromatogram.

All peaks were integrated within the diesel range. The result is an estimated value.

Laboratory Representative

11/12/04
Date Reported